

REMARKS/ARGUMENTS

The Applicants originally submitted Claims 1-21 in the application. In previous response, the Applicants amended Claims 2, 9 and 16. In the present preliminary amendment, the Applicants have amended Claims 1-2, 4-6, 8-9, 11-13, 15-16 and 18-20. Support for the amended claims is in the original specification in paragraph 52 on page 25, paragraph 58-60 on pages 28-30 and in Figure 5.

The Applicants have not amended, canceled or added any other claims in the preliminary amendment. Accordingly, Claims 1-21 are currently pending in the application.

I. Rejection of Claims 2, 9 and 16 under 35 U.S.C. §112

Previously, the Examiner rejected Claims 2, 9 and 16 under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement and under 35 U.S.C. §112, second paragraph, for being indefinite. Due to the present amendment of Claims 2, 9 and 16, the 35 U.S.C. §112 rejections are now moot. Accordingly, the Applicants respectfully request the Examiner to withdraw the §112 rejections of Claims 2, 9 and 16 and allow issuance thereof.

II. Rejection of Claims 1-3, 6-10 and 13-14 under 35 U.S.C. §102

Previously, the Examiner rejected Claims 1-3, 6-10 and 13-14 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,933,627 to Parady. The Applicants respectfully disagree.

Parady discloses switching between threads of a program in response to a long-latency event. (See Parady, column 2, lines 26-28.) Parady does not teach, however, receiving a context switch request and, based thereon, storing a thread executing within a multi-thread execution

pipeline loop in a miss fulfillment FIFO to prevent the thread from executing until a device request from the thread is fulfilled as recited in amended independent Claims 1 and 8. On the contrary, Parady provides no teaching of storing a thread in a buffer in response to a context switch request. Instead, Parady teaches switching from one thread to another thread located in a different register when a cache miss occurs. (See Parady, column 3, line 59 to column 4, line 21 and column 6, lines 11-16.)

Parady, therefore, does not disclose each and every element of independent Claims 1 and 8 and, as such, is not an anticipating reference of Claims 1 and 8 and Claims dependent thereon. Accordingly, the Applicants respectfully request the Examiner to withdraw the §102 rejection with respect to Claims 1-3, 6-10 and 13-14.

III. Rejection of Claims 4-5 and 11-12 under 35 U.S.C. §103

Previously, the Examiner rejected Claims 4-5 and 11-12 under 35 U.S.C. §103(a) as being unpatentable over Parady in view of Kon and Medina's Round-Robin Scheduling. The Applicants respectfully disagree that the cited combination teaches or suggests each element of Claims 4-5 and 11-12 that depend on amended independent Claims 1 and 8, respectfully.

As discussed above, Parady does not teach each element of independent Claims 1 and 8. Additionally, Parady does not suggest each element of independent Claims 1 and 8 since Parady teaches switching from a thread in one register to a thread in another register after a cache miss occurs. (See Parady, column 3, line 59 to column 4, line 21 and column 6, lines 11-16.) Kon has not been cited to cure the deficiencies of Parady but to teach a miss fulfillment FIFO buffer. (See Examiner's Final Rejection mailed May 6, 2005, page 6.) Furthermore, Kon does not teach or

suggest storing a thread in a miss fulfillment FIFO buffer in response to a context switch request but instead teaches round-robin scheduling and defines round-robin scheduling as allocating a CPU to processes for a time interval of a quantum. (See Kon, page 1.) Thus, the cited combination of Parady and Kon does not teach or suggest each and every element of amended independent Claims 1 and 8 and, as such, does not provide a *prima facie* case of obviousness of Claims 4-5 and 11-12 that, respectively, depend thereon. Accordingly, the Applicants respectfully request the Examiner to withdraw the §103(a) rejection and allow issuance of Claims 4-5 and 11-12.

IV. Rejection of Claims 15-17 and 20-21 under 35 U.S.C. §103

The Examiner has rejected Claims 15-17 and 20-21 under 35 U.S.C. §103(a) as being unpatentable over Parady in view of by U.S. Patent No. 5,509,006 to Wilford, *et al.* The Applicants respectfully disagree.

As discussed above regarding independent Claims 1 and 8, Parady does not teach or suggest storing, based on receiving a context switch request, a thread executing within a multi-thread execution pipeline loop in a miss fulfillment FIFO as also recited in independent Claim 15. Wilford has not been cited to cure this deficiency of Parady but to teach tree engines that parse data. (See Examiner's Final Rejection, page 10.) Furthermore, Wilford does not cure the deficiencies of Parady but is directed to providing a specialized apparatus capable of switching packets at high speed. (See Wilford, column 1, lines 65-66.) In a preferred embodiment, the specialized apparatus includes a decision tree memory. (See Wilford, column 2, lines 9-10.) Thus, the cited combination of Parady and Wilford does not teach or suggest each and every element of independent Claim 15 and, as such, does not provide a *prima facie* case of obviousness of Claim 15 and Claims dependent thereon.

Accordingly, the Applicants respectfully request the Examiner to withdraw the §103(a) rejection and allow issuance of Claims 15-17 and 20-21.

V. Rejection of Claims 18-19 under 35 U.S.C. §103

The Examiner has rejected Claims 18-19 under 35 U.S.C. §103(a) as being unpatentable over Parady in view of Wilford and in further view of Kon. The Applicants respectfully disagree.

As discussed above, Parady, Wilford, and Kon, individually or in combination, do not teach or suggest storing, based on receiving a context switch request, a thread executing within a multi-thread execution pipeline loop in a miss fulfillment FIFO as recited in independent Claim 15. Thus, the cited combination of Parady, Wilford and Kon does not teach or suggest each and every element of independent Claims 18-19, which depend on Claim 15. The cited combination, therefore, does not provide a *prima facie* case of obviousness of Claims 18-19. Accordingly, the Applicants respectfully request the Examiner to withdraw the §103(a) rejection and allow issuance of Claims 18-19.

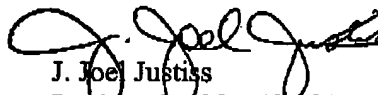
VI. Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-21.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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